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AMENDMENTS TO THE CLAIMS
        This listing of the claims replaces all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS

1.   (Currently Amended) A method of managing a logical allocation of resources between connection-oriented traffic and connectionless traffic being routed through a shared physical network element of a communications network, the method comprising the steps of:

    a)   determining a resource requirement of the connection-oriented traffic; and

    b)   dynamically adjusting a respective connectionless traffic metric to be used for routing connectionless traffic based on the determined resource requirement of the connection-oriented traffic; and

    c)   routing the connectionless traffic based on the adjusted traffic metric,

thereby providing the logical allocation of resources for connectionless traffic based on the resource requirement of connection-oriented traffic.

2.   (Original) A method as claimed in claim 1, wherein the connection-oriented traffic comprises multi-protocol label switched (MPLS) traffic.

3.   (Original) A method as claimed in claim 2, wherein the step of determining the resource requirement of the connection-oriented traffic comprises the steps of:

    a)   receiving MPLS reservation requests in respect of the shared physical network element; and

    b)   dynamically adjusting a total amount of resources required to satisfy the received MPLS reservation requests.

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4.   (Original)   A method as claimed in claim 1, wherein the connectionless traffic
        comprises internet protocol (IP) packet traffic.

5.   (Original)   A method as claimed in claim 4, wherein routing of the connectionless
        traffic is controlled using an interior gateway protocol (IGP) routing system adapted
        to calculate a shortest path route of the connectionless traffic through the
        communications network, the shortest path routing being based on a respective
        metric of each physical network element forming the network.

6.   (Original)   A method as claimed in claim 5, wherein the step of dynamically
        adjusting the respective metric comprises the steps of:

        a)   increasing the respective metric as the determined resource requirement of the
              connection-oriented traffic increases; and

        b)   decreasing the respective metric as the determined resource requirement of the
              connection-oriented traffic decreases.

7.   (Original)   A method as claimed in claim 5, wherein the respective metric is a link
        distance vector associated with a respective link connected to a node of the
        communications network.

8.   (Original)   A method as claimed in claim 7, wherein the step of dynamically
        adjusting the respective metric comprises the steps of:

        a)   determining an updated value of the link distance vector; and

        b)   updating a mapping table maintained by the node with the updated value of the
              link distance vector.

9.   (Original)   A method as claimed in claim 8, wherein the step of determining an
        updated value of the link distance vector comprises a step of querying a resource
        allocation table comprising a plurality of characteristic resource allocation values

and a respective link distance vector value corresponding to each characteristic resource allocation value.

10.   (Original)   A method as claimed in claim 9, wherein the step of querying the resource allocation table comprises the steps of:

    a)   identifying the characteristic resource allocation value which most closely matches the determined resource requirement of the connection-oriented traffic; and

    b)   selecting the corresponding link distance vector as the updated link cost factor.

11.   (Original) A method as claimed in claim 5, wherein the respective metric is a link cost factor associated with a respective link connected to a node of the communications network.

12.   (Previously Presented)   A method as claimed in claim 10, wherein the step of dynamically adjusting the respective metric comprises the steps of:

    a)   determining an updated value of the link cost factor;

    b)   updating a PATH table maintained by the node with the updated link cost factor value; and

    c)   propagating a link state packet containing the updated link cost factor value to neighboring nodes within the network.

13.   (Original)   A method as claimed in claim 12, wherein the step of determining an updated value of the link cost factor comprises a step of querying a resource allocation table comprising a plurality of characteristic resource allocation values and a respective link cost factor value corresponding to each characteristic resource allocation value.

14.   (Original)   A method as claimed in claim 13, wherein the step of querying the resource allocation table comprises the steps of:

    a)   identifying the characteristic resource allocation value which most closely matches the determined resource requirement of the connection-oriented traffic; and

    b)   selecting the corresponding link cost factor as the updated link cost factor.

15.   (Currently Amended) A shared network element operative within a communications network capable of end-to-end transport of connection-oriented traffic and connectionless traffic through the shared network element, the shared network element comprising:

    a)   means for determining a resource requirement of the connection-oriented traffic; and

    b)   means for dynamically adjusting a respective ~~connectionless~~ traffic metric_to be used for routing connectionless traffic based on the determined resource requirement of the connection-oriented traffic~~.~~: and

    c)   means for routing the connectionless traffic through the shared network element based on the adjusted traffic metric.

thereby providing a logical allocation of resources for connectionless traffic based on the resource requirement of connection-oriented traffic.

16.   (Original)   A shared network element as claimed in claim 15, wherein the connection-oriented traffic comprises multi-protocol label switched (MPLS) traffic.

17.   (Original) A shared network element as claimed in claim 16, wherein the means for determining the resource requirement of the connection-oriented traffic comprises:

    a)   means for receiving MPLS reservation requests in respect of the shared physical network element; and

b)   means for dynamically adjusting a total amount of resources required to satisfy the received MPLS reservation requests.

18.   (Original)   A shared network element as claimed in claim 15, wherein the connectionless traffic comprises internet protocol (IP) packet traffic.

19.   (Original) A shared network element as claimed in claim 18, wherein routing of the connectionless traffic is controlled using an interior gateway protocol (IGP) routing system adapted to calculate a shortest path route of the connectionless traffic through the communications network, the shortest path routing being based on a respective metric of each physical network element forming the network.

20.   (Original) A shared network element as claimed in claim 19, wherein the means for dynamically adjusting the respective metric comprises means adapted to:

a)   increase the respective metric as the determined resource requirement of the connection-oriented traffic increases; and

b)   decrease the respective metric as the determined resource requirement of the connection-oriented traffic decreases.

21.   (Original) A shared network element as claimed in claim 19, wherein the respective metric is a link distance vector associated with a respective link connected to a node of the communications network.

22.   (Original) A shared network element as claimed in claim 21, wherein the means for dynamically adjusting the respective metric comprises:

a)   means for determining an updated value of the link distance vector; and

b)   means for updating a mapping table maintained by the shared network element with the updated value of the link distance vector.

23. (Original) A shared network element as claimed in claim 22, wherein the means for determining an updated value of the link distance vector comprises a resource allocation table comprising a plurality of characteristic resource allocation values and a respective link distance vector value corresponding to each characteristic resource allocation value.

24. (Original) A shared network element as claimed in claim 23, further comprising:

   a) means for identifying the characteristic resource allocation value which most closely matches the determined resource requirement of the connection-oriented traffic; and

   b) means for selecting the corresponding link distance vector as the updated link cost factor.

25. (Original) A shared network element as claimed in claim 19, wherein the respective metric is a link cost factor associated with a respective link connected to a node of the communications network.

26. (Previously Presented) A shared network element as claimed in claim 25, wherein the means for dynamically adjusting the respective metric comprises:

   a) means for determining an updated value of the link cost factor;

   b) means for updating a PATH table maintained by the node with the updated link cost factor value; and

   c) means for propagating a link state packet containing the updated link cost factor value to neighboring nodes within the network.

27. (Original) A shared network element as claimed in claim 26, wherein the means for determining an updated value of the link cost factor comprises a resource allocation table comprising a plurality of characteristic resource allocation values and a

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respective link cost factor value corresponding to each characteristic resource allocation value.

28.   (Original) A shared network element as claimed in claim 27, further comprising:

a)   means for identifying the characteristic resource allocation value which most closely matches the determined resource requirement of the connection-oriented traffic; and

b)   means for selecting the corresponding link cost factor as the updated link cost factor.

29.   (Currently Amended) A method of managing a logical allocation of resources between connection-oriented traffic and connectionless traffic being routed through a shared physical network element of a communications network, the method comprising the steps of:

a)   in response to a change in resources allocated to a multi-protocol label switched (MPLS) path through the shared physical network element, determining an updated total amount of resources of the shared physical network element allocated to connection-oriented traffic; and

b)   dynamically adjusting a respective updated connectionless traffic metric of the shared physical network element based on the updated total resources allocated to the connection-oriented traffic; and

c)   routing the connectionless traffic based on the adjusted traffic metric.

30.   (Currently Amended) A shared network element operative within a communications network capable of end-to-end transport of connection-oriented traffic and connectionless traffic through the shared network element, the shared network element comprising:

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a)   means responsive to a change in resources allocated to a multi-protocol label switched (MPLS) path through the shared physical network element for determining an updated total amount of resources of the shared physical network element allocated to connection-oriented traffic; and

b)   means for determining an updated ~~connectionless~~ traffic metric to be used for routing connectionless traffic based on the updated total resources allocated to the connection-oriented traffic~~;~~; and

c)   means for routing the connectionless traffic based on the adjusted traffic metric.